

High-Ability Influencers? The Heterogeneous Effects of Gifted Classmates

Simone Balestra, Aurélien Sallin, and Stefan C. Wolter

Online Appendix

Table A.1: Construction of the sample

	Observations
Raw data	33,657
Segregated special schools	– 706
Missing/implausible covariates	– 15
Missing/implausible test scores	– 249
Missing/implausible class size	– 922
Final sample	31,765
Gifted students	– 578
Estimation sample	31,187

Notes: Data are from the School Psychological Service St. Gallen and the Stellwerk test service provider.

Table A.2: Attrition analysis

	(1)	(2)	(3)	(4)	(5)
	Missing Math test score	Missing language test score	Missing Math and language test scores	Missing post-compulsory education information	Missing occupation profile information
Exposure to gifted classmates	0.0004 (0.0029)	-0.0024 (0.0023)	-0.0010 (0.0017)	0.0059 (0.0055)	-0.0075 (0.0056)
Mean outcome	0.0050	0.0046	0.0027	0.2668	0.0816
School-by-year FE	Yes	Yes	Yes	Yes	Yes
Observations	31,406	31,406	31,406	31,406	15,552

Notes: *** $p < 0.01$, ** $p < 0.05$, and * $p < 0.10$. Standard errors, shown in parentheses, are clustered at the classroom level. Data are from the School Psychological Service St. Gallen and the Stellwerk test service provider.

Table A.3: Sensitivity to the specification of the treatment variable

	(1) Composite test score	(2) Math test score	(3) Language test score	(4) Composite test score	(5) Math test score	(6) Language test score
Proportion of gifted classmates	1.141*** (0.243) [0.057]	0.975*** (0.242) [0.049]	1.000*** (0.228) [0.050]	1.368*** (0.291) [0.068]	1.271*** (0.292) [0.064]	1.093*** (0.285) [0.055]
Female	-0.181*** (0.015)	-0.354*** (0.014)	0.046*** (0.014)	-0.173*** (0.016)	-0.343*** (0.016)	0.049*** (0.016)
Proportion * Female				-0.444 (0.315)	-0.580* (0.330)	-0.183 (0.319)
Individual characteristics	Yes	Yes	Yes	Yes	Yes	Yes
Classroom characteristics	Yes	Yes	Yes	Yes	Yes	Yes
School-by-year FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	31,187	31,187	31,187	31,187	31,187	31,187

Notes: *** $p < 0.01$, ** $p < 0.05$, and * $p < 0.10$. Standard errors, shown in parentheses, are clustered at the classroom level. The marginal effect of adding one gifted peer to a class of 20 is shown in brackets, and is defined as the coefficient divided by 20. Individual characteristics include gender, native German speaker, and age at test. Classroom characteristics include class size, share of females, share of native German speakers, and average age at test. Data are from the School Psychological Service St. Gallen and the Stellwerk test service provider.

Table A.4: Within-teacher identification

	(1) Composite test score	(2) Math test score	(3) Language test score	(4) Composite test score	(5) Math test score	(6) Language test score
Exposure to gifted classmates	0.088*** (0.023)	0.065*** (0.023)	0.088*** (0.020)	0.107*** (0.025)	0.090*** (0.026)	0.095*** (0.024)
Female	-0.200*** (0.012)	-0.368*** (0.013)	0.028** (0.012)	-0.190*** (0.014)	-0.355*** (0.014)	0.032** (0.014)
Exposure * Female				-0.037 (0.026)	-0.049* (0.027)	-0.014 (0.026)
Individual characteristics	Yes	Yes	Yes	Yes	Yes	Yes
Classroom characteristics	Yes	Yes	Yes	Yes	Yes	Yes
Teacher FE	Yes	Yes	Yes	Yes	Yes	Yes
School FE	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	31,187	31,187	31,187	31,187	31,187	31,187

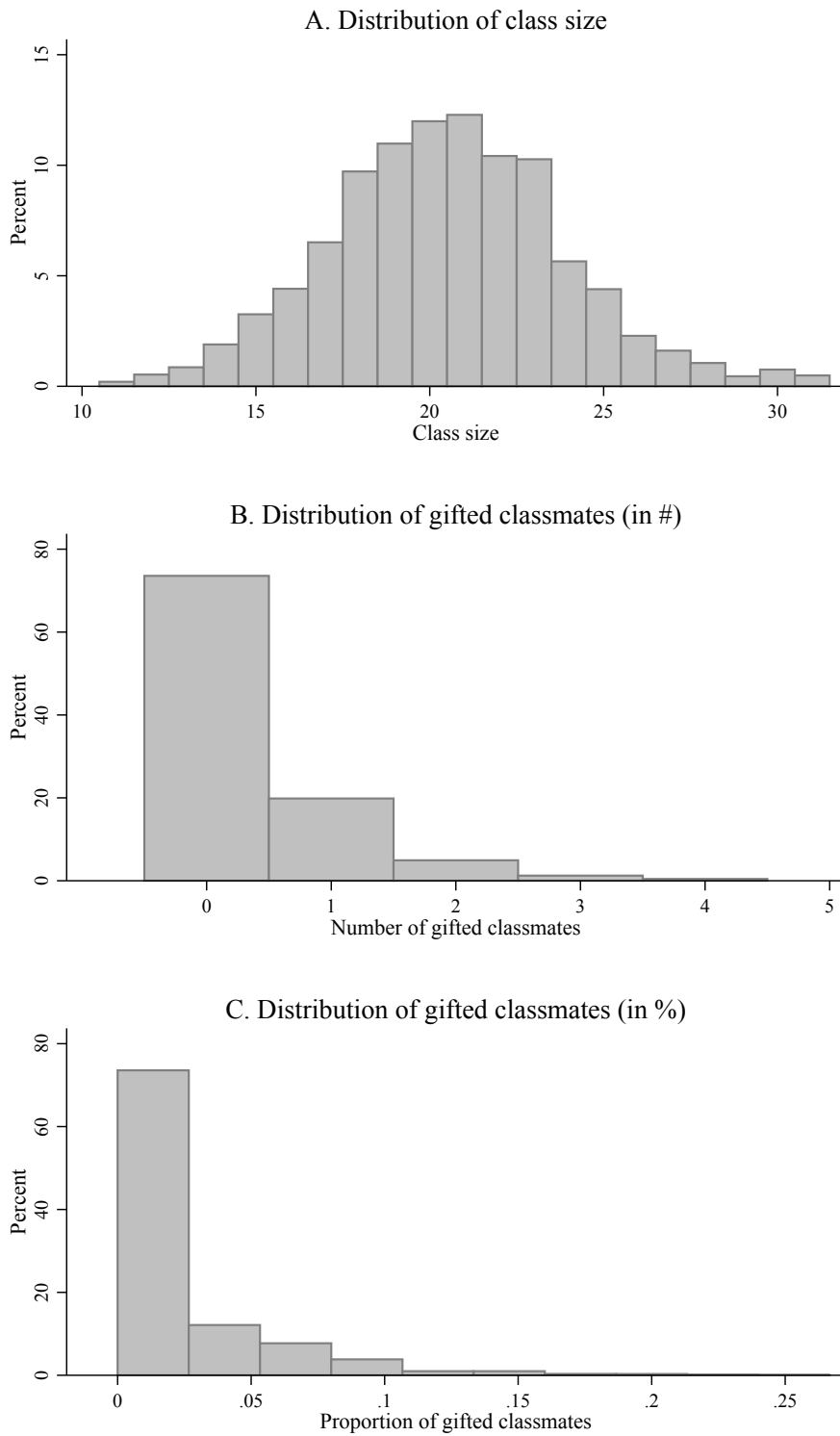
Notes: *** $p < 0.01$, ** $p < 0.05$, and * $p < 0.10$. Standard errors, shown in parentheses, are clustered at the classroom level. Individual characteristics include gender, native German speaker, and age at test. Classroom characteristics include class size, share of females, share of native German speakers, and average age at test. Data are from the School Psychological Service St. Gallen and the Stellwerk test service provider.

Table A.5: Heterogeneity analysis: relative age, native speaker, class size, and teacher's gender

	(1) Composite test score	(2) Composite test score	(3) Composite test score	(4) Composite test score
Exposure to gifted classmates	0.081*** (0.024)	0.078* (0.046)	0.053* (0.030)	0.086*** (0.026)
Relative young	-0.133*** (0.023)			
(Exposure to gifted classmates)* (Relative young)	0.038 (0.026)			
Native speaker		0.401*** (0.025)		
(Exposure to gifted classmates)* (Native speaker)		0.019 (0.043)		
Small class			-0.019 (0.048)	
(Exposure to gifted classmates)* (Small class)			0.112** (0.047)	
Student-teacher same gender				-0.009 (0.014)
(Exposure to gifted classmates)* (Student-teacher same gender)				0.018 (0.027)
Individual characteristics	Yes	Yes	Yes	Yes
Classroom characteristics	Yes	Yes	Yes	Yes
School-by-year FE	Yes	Yes	Yes	Yes
Observations	31,187	31,187	31,187	31,187

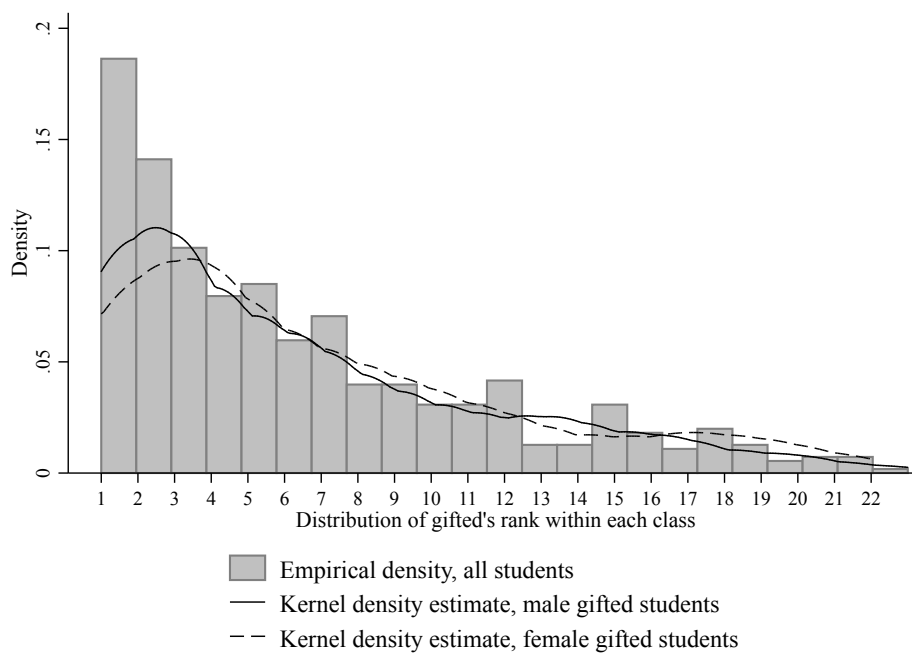
Notes: *** $p < 0.01$, ** $p < 0.05$, and * $p < 0.10$. Standard errors, shown in parentheses, are clustered at the classroom level. Individual characteristics include gender, native German speaker, and age at test. Classroom characteristics include class size, share of females, share of native German speakers, and average age at test. Data are from the School Psychological Service St. Gallen and the Stellwerk test service provider.

Figure A.1: Distribution of class size and gifted classmates



Notes: Data are from the School Psychological Service St. Gallen and the Stellwerk test service provider.

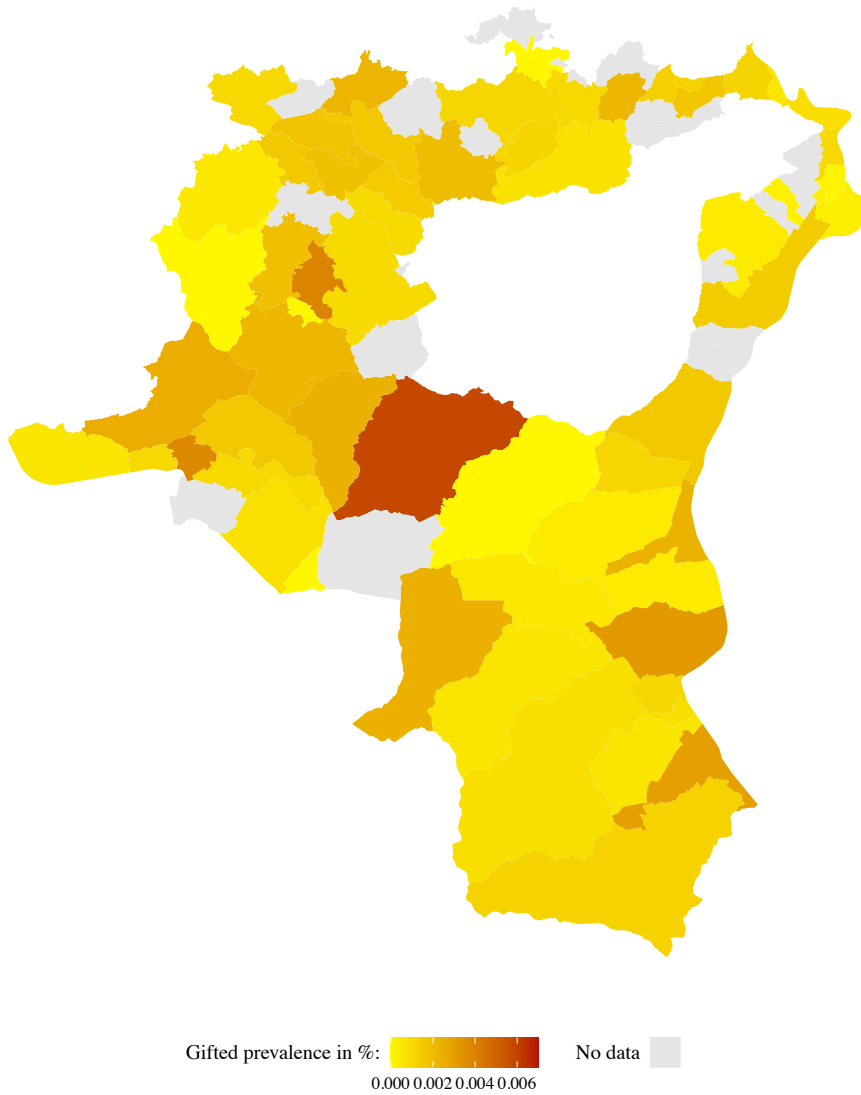
Figure A.2: Distribution of outcome ranks of gifted children in their classroom



Notes: Data are from the School Psychological Service St. Gallen and the Stellwerk test service provider.

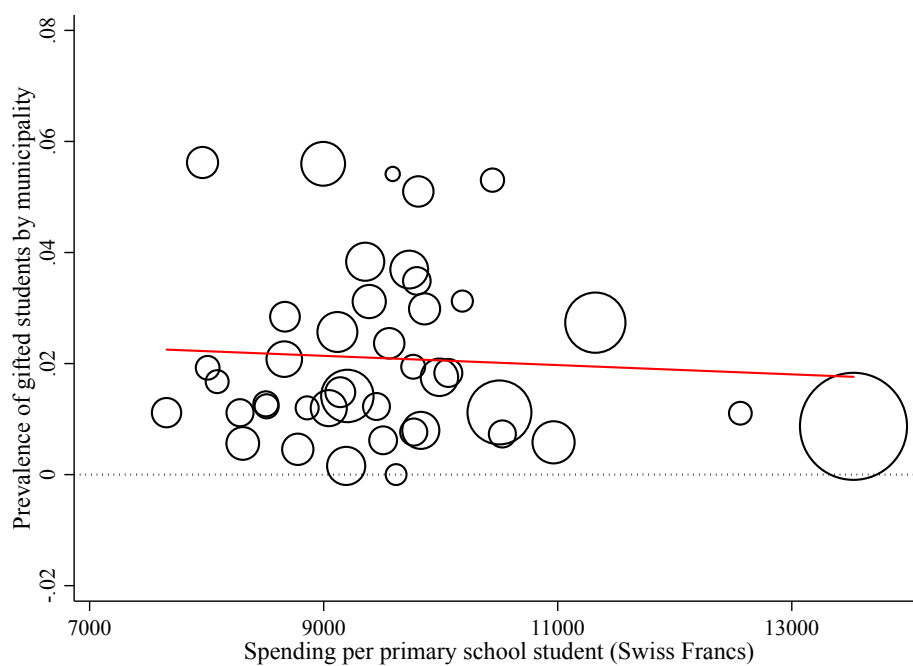
Figure A.3: Prevalence of gifted students by municipality

Prevalence of gifted children across municipalities
In pct. of the **overall population**



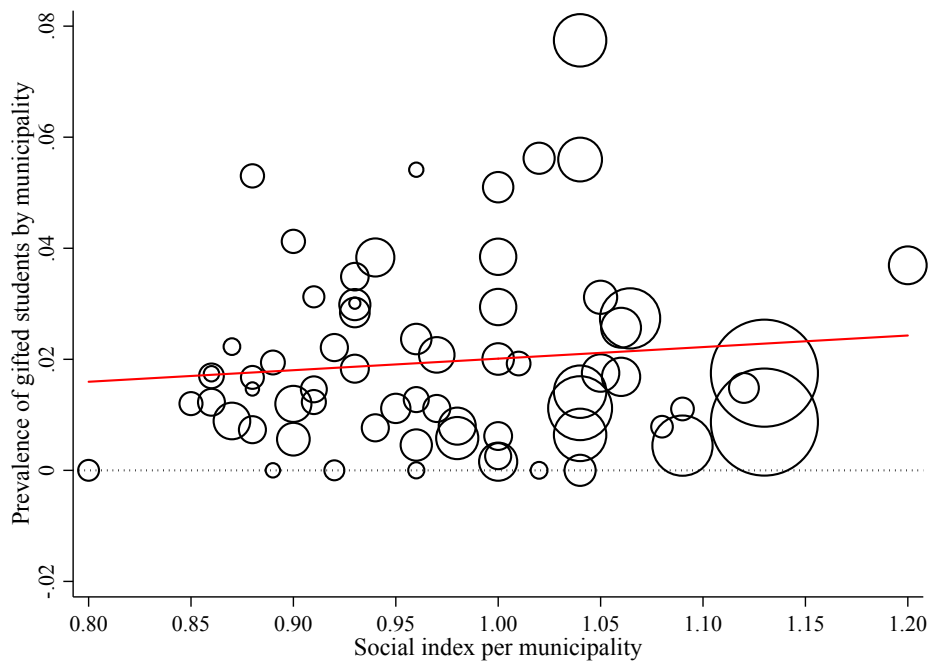
Notes: Data are from the School Psychological Service St. Gallen and the Stellwerk test service provider.

Figure A.4: Per-student spending by exposure to gifted classmates



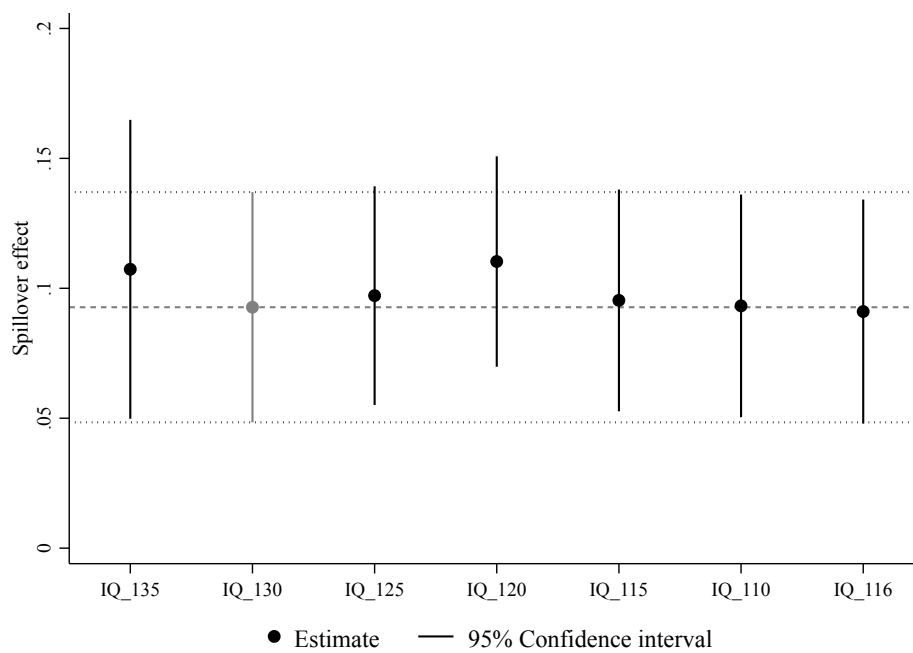
Notes: Each circle represents one municipality, the dimension of the circle represents the size of the municipality, and the red solid line is a linear fit that summarizes the relation between exposure and spending. Data refer to 2017 and are from the official accounts published by each municipality at the end of the fiscal year.

Figure A.5: Social index by exposure to gifted classmates



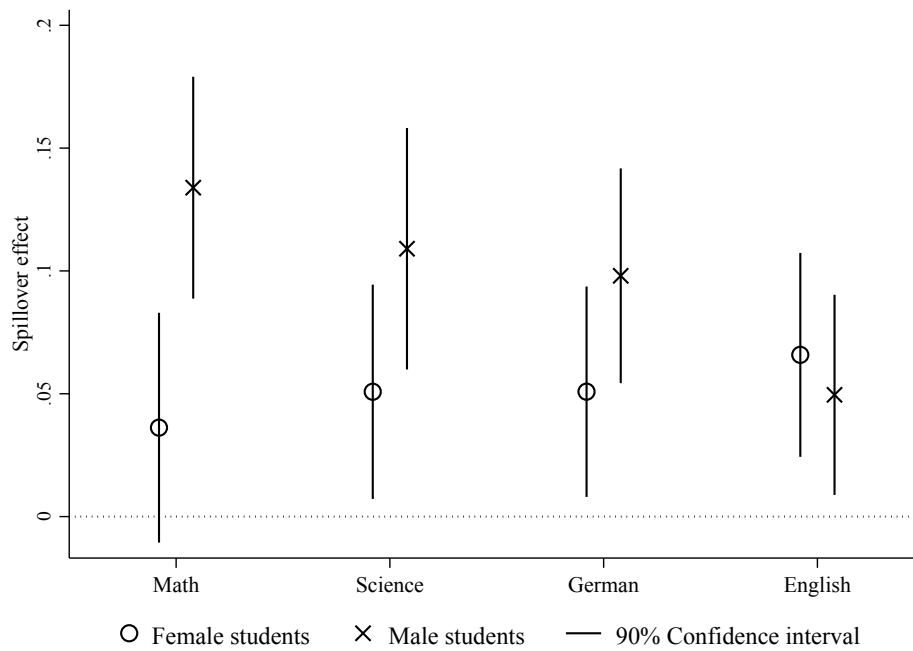
Notes: each circle represents one municipality, the dimension of the circle represents the size of the municipality, and the red solid line is a linear fit that summarizes the relation between exposure and index. Data refer to 2007 (at baseline) and are provided by the Competence Center for Statistics within the Department of Economic Affairs of the Canton of St. Gallen.

Figure A.6: Sensitivity to the IQ threshold for classifying a student as gifted



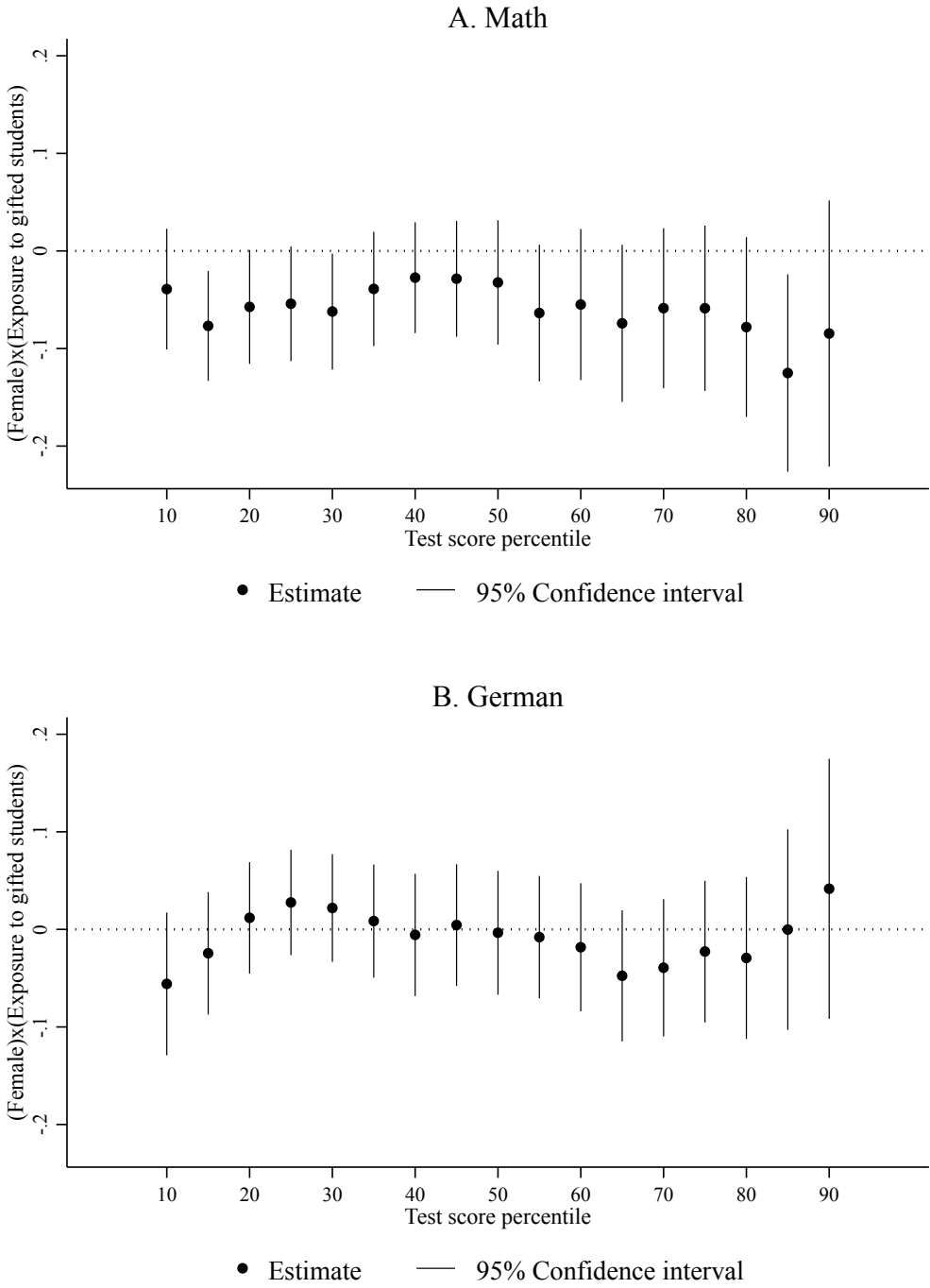
Notes: Results are based on separate regressions on the same estimation sample, which comprises students with IQ below 110 (29,862 observations). The gray estimate is based on the the main IQ threshold of the paper. The last estimate (IQ-116) uses the alternative IQ threshold for non-native speakers of 116 points. Data are from the School Psychological Service St. Gallen and the Stellwerk test service provider.

Figure A.7: Spillovers by school subjects



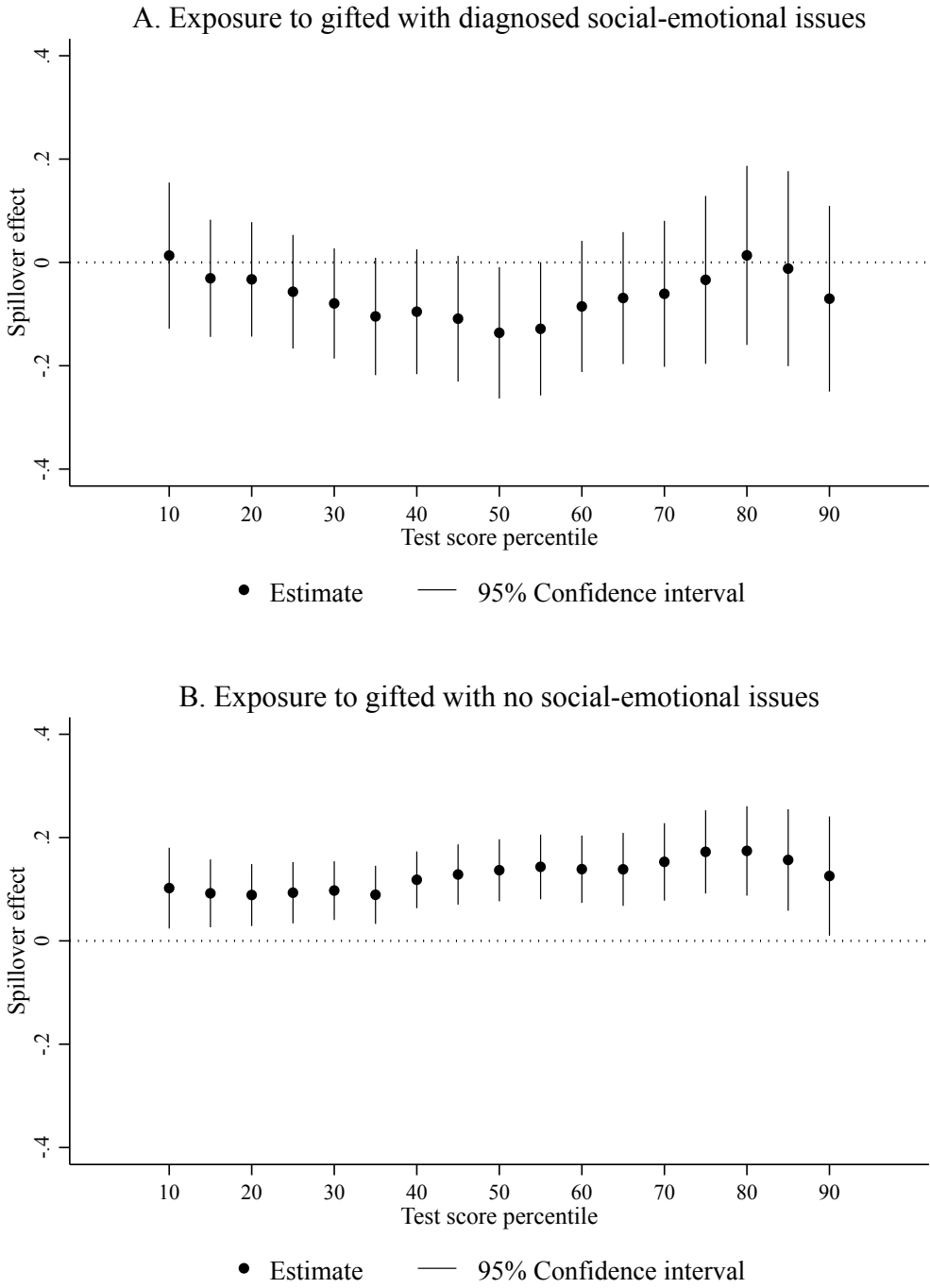
Notes: Data are from the School Psychological Service St. Gallen and the Stellwerk test service provider.

Figure A.8: Quantile treatment effect of exposure to gifted classmates for female students and male students



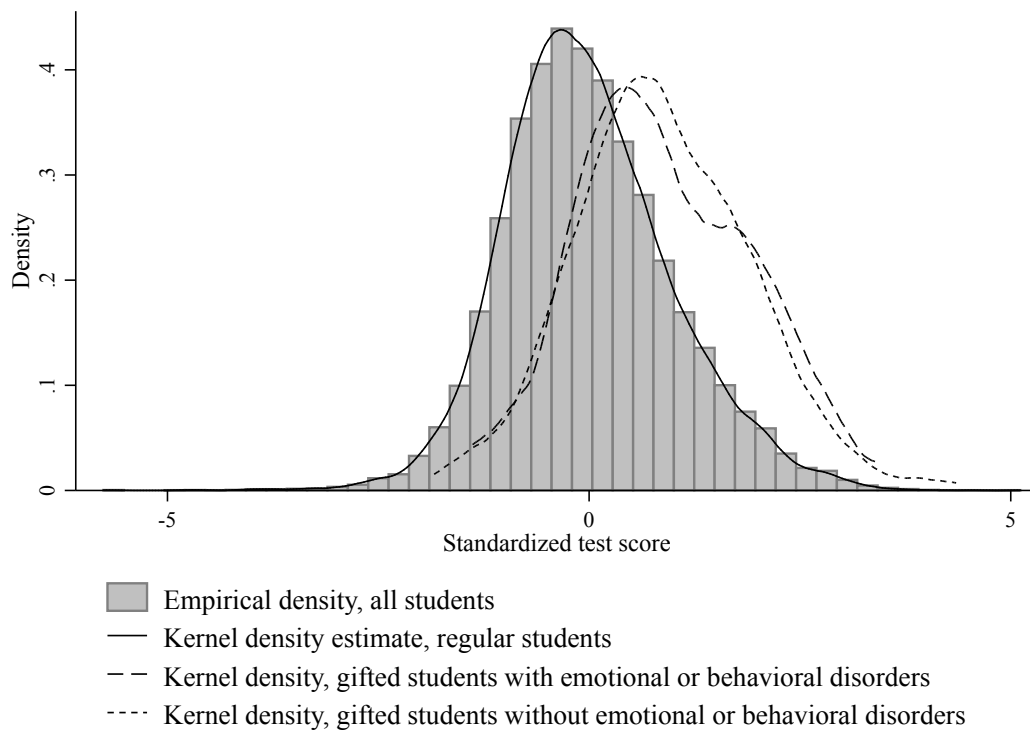
Notes: Data are from the School Psychological Service St. Gallen and the Stellwerk test service provider.

Figure A.9: Quantile treatment effect of exposure to gifted students with and without other concurring diagnosis



Notes: Data are from the School Psychological Service St. Gallen and the Stellwerk test service provider.

Figure A.10: Distribution of test scores for gifted children with and without emotional or behavioral disorders



Notes: Data are from the School Psychological Service St. Gallen and the Stellwerk test service provider.